Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer-readable storage medium ~~having data structures stored thereon or a computer-readable propagated signal having data structures, the data structures~~ comprising:

a data repository including:

~~an access control group data structure to store~~ access control group data including access group entries, an access group entry identifying an access control group,[[;]]

~~a user access data structure to store~~ user access data ~~wherein the~~ including user access data entries, a user access entry relating [[relates]] to at least one entry in the access control group data ~~structure~~ and identifying a user and an access control group,[[;]] and

~~a data object access data structure to store~~ data object access data ~~wherein the~~ including data object access data entries, a data object access data entry relating [[relates]] to at least one entry in the access control group data ~~structure~~ and identifying a data object and an access control group; and

executable instructions that, when executed, perform operations comprising:

receiving an indication of a user;

receiving an indication of a data object;

searching the user access data to identify a user access data entry that identifies the indicated user;

searching data object access data to identify a data object access data entry that identifies the indicated data object;

comparing an access control group identified by the identified user access data entry with an access control group identified by the identified data object access entry; and

enabling the indicated user to access the indicated data object conditioned on the access control group identified by the identified user access data entry being the same access control group as the access control group identified by the identified data object access data entry.

2. (Currently Amended) The medium ~~or propagated signal~~ of claim 1 wherein at least one entry in the access control group data includes a characteristic for use in determining at least one entry in the user access data relating ~~structure that relates~~ to the at least one entry in the access control group data ~~structure~~.

3. (Currently Amended) The medium ~~or propagated signal~~ of claim 1 wherein at least one entry in the access control group data ~~structure~~ includes a characteristic for use in determining at least one entry in the data object access data relating ~~structure that relates~~ to the at least one entry in the access control group data ~~structure~~.

4. (Currently Amended) The medium ~~or propagated signal~~ of claim 1 wherein at least one entry in the access control group data ~~structure~~ includes:

a user characteristic for use in determining at least one entry in the user access data ~~structure that relates~~ relating to the at least one entry in the access control group data ~~structure~~, and

an object characteristic for use in determining at least one entry in the data object access data ~~structure that relates~~ relating to the at least one entry in the access control group data ~~structure~~.

5. (Currently Amended) The medium ~~or propagated signal~~ of claim 1 wherein at least one entry in the access control group data ~~structure~~ includes an indication of an access control rule for use in determining:

at least one entry in the user access data ~~structure that relates~~ relating to the at least one entry in the access control group data ~~structure~~, and

at least one entry in the data object data ~~structure that relates~~ relating to the at least one entry in the access control group data ~~structure~~.

6. (Currently Amended) The medium ~~or propagated signal~~ of claim 1 wherein at least one entry in the data object access data ~~structure~~ includes an indication of action that is permitted to be performed on a data object identified in the at least one entry in the data object access data ~~structure~~.

7. (Currently Amended) The medium ~~or propagated signal~~ of claim 1 wherein:

at least one entry in the user access data ~~structure~~ includes an indication of action that is permitted to be performed by a user identified in the at least one entry in the user access data ~~structure~~ on a data object identified in the at least one entry in the data object access data ~~structure~~ such that the at least one entry in the data object access data ~~structure~~ relates to the at least one entry in the user access data ~~structure~~.

8. (Currently Amended) The medium ~~or propagated signal~~ of claim 1 ~~further comprising an~~ wherein the data repository further includes access rule data ~~structure to store access control rule data~~ including access control rule entries, ~~wherein the~~ an access control rule ~~data relates~~ entry relating to at least one entry in the access control group data ~~structure~~.

9. (Currently Amended) The medium ~~or propagated signal~~ of claim 8 wherein at least one entry in the access rule data ~~structure~~ includes an indication of action that is permitted to be performed for at least one entry in the data object access data ~~structure~~.

10. (Currently Amended) The medium ~~or propagated signal~~ of claim 8 wherein at least one entry in the access rule data ~~structure~~ includes an indication of how to determine at least one entry in the data object access data ~~structure~~ that relates to at least one entry in the access control group data ~~structure~~.

11. (Currently Amended) The medium ~~or propagated signal~~ of claim 8 wherein at least one entry in the access rule data ~~structure~~ includes an indication of how to determine at least one entry in the user access data ~~structure~~ that relates to at least one entry in the access control group data ~~structure~~.

12. (Currently Amended) The medium ~~or propagated signal~~ of claim 1 wherein each of the access [[control]] group data ~~structure~~, the user access data ~~structure~~, and the data object access data ~~structure~~ are each separately maintainable from each [[of the]] other ~~data structures~~.

13. (Currently Amended) The medium ~~or propagated signal~~ of claim 1 wherein each of the user access data ~~structure~~ and the data object access data ~~structure~~ are separately maintainable from the other ~~data structure~~.

14. (Currently Amended) The medium ~~or propagated signal~~ of claim 13 wherein a change in the user access data ~~stored in the user access data structure~~ does not necessitate a change in the data object access data ~~stored in the data object access data structure~~ to maintain desired control over access by particular users to particular data objects.

15. (Currently Amended) The medium ~~or propagated signal~~ of claim 13 wherein a change in the data object access data ~~stored in the data object access data structure~~ does not necessitate a change in the user access data ~~stored in the user access data structure~~ to maintain desired control over access by particular users to particular data objects.

16. (Currently Amended) A computer-readable storage medium ~~having data structures stored thereon or a computer-readable propagated signal having data structures, the data structures~~ comprising:

a data repository including:

~~an access control rule data structure to store~~ access control rule data including access control rule entries, an access control rule entry identifying a characteristic method data entry[[;]], and

~~a characteristic method data structure to store~~ characteristic method data ~~wherein the~~ including characteristic method data entries, a characteristic method data entry relating [[relates]] to at least one entry in the access control rule data ~~structure~~ and identifying a method to determine a characteristic for a user and identifying a method to determine the characteristic for a data object; and

executable instructions that, when executed, perform operations comprising:

receiving an indication of a user;

receiving an indication of a data object;

accessing an access control rule data entry identifying a characteristic method data entry;

accessing the characteristic method data entry identified by the access control rule data entry, the characteristic method data entry identifying a method to determine a characteristic for a user and identifying a method to determine the characteristic for a data object;

determining the characteristic for the user by performing the method to determine the characteristic for the user identified by the characteristic method data structure;

determining the characteristic for the data object by performing the method to determine the characteristic for the data object identified by the characteristic method data structure; and

generating access control information that permits the user to access the data object conditioned on the characteristic for the user being the same as the characteristic for the data object.

17. (Currently Amended) The medium ~~or propagated signal~~ of claim 16 ~~further comprising~~ wherein the data repository further includes ~~a user data structure to store~~ user data.

18. (Currently Amended) The medium ~~or propagated signal~~ of claim 17 wherein at least one entry in the characteristic method data ~~structure includes an indication of~~ identifies a method to determine a user characteristic associated with at least one entry in the user data ~~structure~~.

19. (Currently Amended) The medium ~~or propagated signal~~ of claim 18 wherein at least one entry in the access control rule data ~~structure~~ includes an indication of a criterion for use in eliminating at least one entry in the ~~data object~~ user data ~~structure~~ when using the method to determine a user characteristic.

20. (Currently Amended) The medium ~~or propagated signal~~ of claim 18 wherein at least one entry in the characteristic method data ~~structure~~ includes an indication of a criterion for use in eliminating at least one entry in the ~~data object~~ user data ~~structure~~ when using the method to determine a user characteristic.

21. (Currently Amended) The medium ~~or propagated signal~~ of claim 16 ~~further comprising~~ wherein the data repository further includes ~~a data object data structure to store~~ data object data.

22. (Currently Amended) The medium ~~or propagated signal~~ of claim 21 wherein at least one entry in the characteristic method data ~~structure includes an indication of~~ identifies a method

to determine a data object characteristic associated with at least one entry in the data object data ~~structure~~.

23. (Currently Amended) The medium ~~or propagated signal~~ of claim 21 wherein at least one entry in the characteristic method data ~~structure~~ includes an indication of a criterion for use in eliminating at least one entry in the data object data ~~structure~~ when using the method to determine a data object characteristic.

24. (Currently Amended) The medium ~~or propagated signal~~ of claim 21 wherein at least one entry in the access control rule data ~~structure~~ includes an indication of a criterion for use in eliminating at least one entry in the data object data ~~structure~~ when using the method to determine a data object characteristic.

25. (Currently Amended) An apparatus ~~including a computer-readable storage medium having data structures stored thereon, the data structures~~ comprising:

a data repository including:

~~an access control group data structure to store~~ access control group data including access group entries, an access group entry identifying an access control group,[[;]]

~~a user access data structure to store~~ user access data ~~wherein the~~ including user access data entries, a user access entry relating [[relates]] to at least one entry in the access control group data ~~structure~~ and identifying a user and an access control group,[[;]] and

~~a data object access data structure to store~~ data object access data ~~wherein the~~ including data object access data entries, a data object access data relating [[relates]] to at least one entry in the access control group data ~~structure~~ and identifying a data object and an access control group; and

executable instructions that, when executed, perform operations comprising:

receiving an indication of a user;

receiving an indication of a data object;

searching the user access data to identify a user access data entry that identifies the indicated user;

searching data object access data to identify a data object access data entry that identifies the indicated data object;

comparing an access control group identified by the identified user access data entry with an access control group identified by the identified data object access entry; and

enabling the indicated user to access the indicated data object conditioned on the access control group identified by the identified user access data entry being the same access control group as the access control group identified by the identified data object access data entry.

26. (Currently Amended) An apparatus ~~including a computer-readable storage medium having data structures stored thereon, the data structures~~ comprising:

a data repository including:

~~an access control rule data structure to store~~ access control rule data including access control rule entries, an access control rule entry identifying a characteristic method data entry[[;]], and

~~a characteristic method data structure to store~~ characteristic method data ~~wherein the~~ including characteristic method data entries, a characteristic method data entry relating [[relates]] to at least one entry in the access control rule data ~~structure~~ and identifying a method to determine a characteristic for a user and identifying a method to determine the characteristic for a data object; and

executable instructions that, when executed, perform operations comprising:

receiving an indication of a user;

receiving an indication of a data object;

accessing an access control rule data entry identifying a characteristic method data entry;

accessing the characteristic method data entry identified by the access control rule data entry, the characteristic method data entry identifying a method to determine a characteristic for a user and identifying a method to determine the characteristic for a data object;

determining the characteristic for the user by performing the method to determine the characteristic for the user identified by the characteristic method data structure;

determining the characteristic for the data object by performing the method to determine the characteristic for the data object identified by the characteristic method data structure; and

generating access control information that permits the user to access the data object conditioned on the characteristic for the user being the same as the characteristic for the data object.

27. (New) The medium of claim 16 wherein the method to determine the characteristic for the user comprises the method to determine the characteristic for the data object.

28. (New) The medium of claim 16 wherein the method to determine the characteristic for the user is different than the method to determine the characteristic for the data object.

29. (New) The medium of claim 16 wherein the access control rule data includes a first access control rule entry identifying a first characteristic method data entry and a second access control rule entry that is different than the first access control rule entry identifying the first characteristic method data entry.

30. (New) The medium of claim 16 wherein the characteristic method data includes a first characteristic method data entry identifying a first method to determine a characteristic for a

user and a second characteristic method data entry identifying a second method to determine a characteristic for a user, the first method being different than the second method.

31. (New) The medium of claim 16 wherein the characteristic method data includes a first characteristic method data entry identifying a first method to determine a characteristic for a data object and a second characteristic method data entry identifying a second method to determine a characteristic for a data object, the first method being different than the second method.